



# **SIOS DataKeeper Cluster Edition**

**v8.3**

**Release Notes**

**August 2015**

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# SIOS DataKeeper Cluster Edition

## Release Notes

### Version 8.3

(Version 8 Update 3)

### ***Important!!***

***Read This Document Before Attempting To Install Or Use This Product!***  
***This document contains last minute information that must be considered before, during and after installation.***

## Introduction

**SIOS DataKeeper Cluster Edition** is a highly optimized host-based replication solution which integrates seamlessly with Windows Server 2012, Windows Server 2012 R2, and Windows Server 2008 R2/2008 R2 SP1 Failover Clustering. Features of Windows Server Failover Clustering such as cross-subnet failover and tunable heartbeat parameters make it easy for administrators to deploy geographically dispersed clusters. SIOS DataKeeper provides the data replication mechanism which extends both versions of Windows Clustering, allowing administrators to take advantage of these advanced features to support non-shared disk high availability configurations.

Once SIOS DataKeeper Cluster Edition is installed, a new storage class resource type called DataKeeper Volume is available. This new SIOS DataKeeper Volume resource can be used in place of the traditional Physical Disk shared storage resource to enable geographically dispersed clusters, also known as multi-site clusters.

## New Features of SIOS DataKeeper Cluster Edition v8

Feature	Description
New in This Release	
DataKeeper Notification Icon	The DataKeeper Notification Icon shows a summary of your DataKeeper mirrors in the Windows Notification Tray. In addition to the display functions, the DataKeeper Notification Icon also serves as a shortcut to managing your DataKeeper mirrors.
mirrorcleanup.cmd	This command will remove all remnants of a mirror for a selected volume on the local system only and should only be run when recommended by SIOS Support.

## Bug Fixes

Feature	Description
Powershell cmdlet support	Powershell cmdlets that can be used to create job(s), create mirror(s), remove job(s), remove mirror(s) and fetch information about a volume used in DataKeeper (New-DataKeeperMirror, New-DataKeeperJob, Remove-DataKeeperMirror, Remove-DataKeeperJob, Add-DataKeeperJobPair, Get-DataKeeperVolumeInfo).
DKHEALTHCHECK	Support status and issue identification tool. Provides command line interface for basic mirror status and problem detection.
General Maintenance	See <a href="#">Bug Fixes</a> below.
New in Version 8.2.1	
General Maintenance	Bug Fixes.
New in Version 8.2	
DataKeeper Non-Mirrored Volume Cluster Resource	The DataKeeper Non-Mirrored Volume Cluster Resource allows users to use a local volume in a failover cluster without requiring that it be part of a mirror. Some of the common use cases for this feature include enabling rolling cluster OS upgrades on existing hardware and moving tempdb to local storage in SQL 2008 R2 clusters and earlier.
General Maintenance	Bug Fixes.
New in Version 8.1	
General Maintenance	Bug Fixes.
New in Version 8.0.1	
General Maintenance	Bug Fixes.
New in Version 8.0	
Replicate to Node Outside of Cluster	DataKeeper now allows you to have a replication target which resides outside of the failover cluster.
Operating System Support	DataKeeper now only supports Windows 2008R2 and later 64-bit Operating Systems. To run on an earlier version of Windows or on 32-bit systems, you must use DataKeeper v7.
Windows 2012 R2 Support	DataKeeper now supports Windows 2012 R2.
General Maintenance	Bug Fixes.

## Bug Fixes

The following is a list of the latest bug fixes and enhancements.

## Bug Fixes

	Description
3932	Fixed issue where DKCE Volume offline hangs if ExtMirrSvc is not running
3941	Resolved error condition that could cause automatic deletion of mirrors
3947	Detect and handle split-brain conditions with shared volumes correctly
3971	DataKeeper GUI 2x1 job create - Shared Source dialog shows "No Valid IP" and leaves Next button enabled resulting in an invalid job
3979	DataKeeper Switchover to shared peer fails if target system is already a target for the new source
3981	Add more information to split brain resolution event log message
3984	Garbled drive letter in event log message 226 (ExtMirr - System log) on Windows Server 2012
3987	Additional switchover event log message reporting number of mirrors created
3995	BlockTarget remains set on the non-mirrored shared buddies after deleting a job
3998	Possible data corruption in shared-volume configurations after multiple failovers - can use stale bit-map file
4005	Improved volume resize handling under low memory conditions to avoid potential BSOD
4007	Switchover fails but returns success (mirror state on Source not Mirroring)
4008	Improved split brain handling to avoid potential BSOD
4011	Updated DKsupport log collection and added collection of DKHEALTHCHECK status
4012	Improved failed MDL handling to prevent potential BSOD
4013	Volume for sync mirror in WSFC unexpectedly locked and spurious ExtMirr event ID 264 logged
4015	Fixed issue of possible system deadlock if networks are reconnected while waiting for unblock notification
4017	Shared volume switchover doesn't automatically pause a mirror that had been paused on the original source
4018	Switchover of a multi-target mirror that was paused due to a temporary issue remains paused until a user intervenes
4020	Fixed issue where installing DKCE prior to setting up WSFC did not work properly in all scenarios
4025	Make it possible to mirror an A: or B: volume
4028	Improved handling of bitmap requests and source system connections while the target is being deleted to avoid potential BSOD
4033	Bitmap sequence number array error can prevent the mirror target from going into the mirroring state under certain multi-target resync conditions
4040	TargetState property sometimes not set correctly after a switchover.

## Product Definitions and Platforms

### Product Requirements

Product	Operating Systems	Additional Software	
Server Components	See the <a href="#">DKCE Support Matrix</a>	Hotfix – KB 951308  <a href="http://support.microsoft.com/kb/951308">http://support.microsoft.com/kb/951308</a>  If protecting Hyper-V resources, Hotfix KB 958065  <a href="http://support.microsoft.com/?id=958065">http://support.microsoft.com/?id=958065</a>  <b>Note:</b> These hotfixes are not required for Windows Server 2008 R2/2008 R2 SP1.  <a href="#">Microsoft Hotfix KB 2741477</a> is now available that will allow NICs to be added to a Virtual Machine after the VM has been placed into a Failover Cluster. (For more information, see <a href="#">Hyper-V Host Cluster Error.</a> )	
		See the <a href="#">DKCE Support Matrix</a>	See <a href="#">below</a> for details.
		<b>Note:</b> The target snapshot feature requires Microsoft .NET Framework 3.5 SP1 to be installed - download from: <a href="http://www.microsoft.com/net">http://www.microsoft.com/net</a> .	
User Interface	See the <a href="#">DKCE Support Matrix</a>	MMC 3.0 - download from: <a href="http://support.microsoft.com/kb/907265">http://support.microsoft.com/kb/907265</a>	

**Note:** All servers should run the same version of Windows and the same version of DataKeeper software.

Make sure you verify the following settings prior to installing and configuring SIOS DataKeeper Cluster Edition.

- **Important:** SIOS Technology Corp. recommends that users use Domain accounts that have local Admin privileges on all servers running DataKeeper. If you are using Local accounts, the username and passwords must match on all servers running DataKeeper. This recommendation is for all editions and all platforms.
- Follow Microsoft best practices for deploying geographically dispersed clusters, including changing the quorum mode majority node setting with a file share witness.
- DataKeeper Failover Cluster registration is automatic and occurs 60 seconds after the following events have occurred on each cluster node:
  - A DataKeeper Cluster Edition license has been installed on each cluster node.
  - The Windows server Failover Clustering feature has been installed on each server.
  - A Windows server Cluster configuration has been formed.

## Local Security Policy Requirement

If your Windows servers are not in a domain and you are going to run the DataKeeper Service as the local system account, the Local Security policy setting "**Network Access: Let Everyone permissions apply to anonymous users**" must be enabled.

## Known Issues

### SCVMM 2012

If using DataKeeper with SCVMM 2012, you must use SCVMM 2012 SP1.

### Windows Server 2012

For issues and enhancements related to **Windows Server 2012**, see the following topics in the Known Issues section of the DataKeeper Cluster Edition Technical Documentation:

- WSFC 2012 Failover Cluster Manager UI Defect
- WSFC 2012 New File Server Type Not Supported
- Manual Creation of a Mirror in WSFC
- WSFC 2012 Cluster Creation Default Setting Issue
- WSFC 2012 File Shares Cannot be Created for File Server Resource
- WSFC 2012 Server Manager – Incorrect Volume Display
- WSFC 2012 Server Manager – DataKeeper "Disk" Not Shown as Clustered
- Windows Server 2012 Default Information Missing During Mirror Creation
- Windows Server 2012 MMC Snap-in Crash
- Windows Server 2012 – Simultaneous Move of Multiple Clustered File Server Roles Can Result in DataKeeper Switchover Failures
- Windows Server 2012 iSCSI Target Role Does Not Support Dynamic Disks
- Using iSCSI Target with DataKeeper

## DataKeeper Cluster Edition Quick Start Guide

To get started using SteelEye DataKeeper Cluster Edition, refer to the DataKeeper Cluster Edition Quick Start Guide.